MINESHOP · MINEBOX

MineBox 500 Express · 486 kW

Air-cooled 20 ft mining container · built in Latvia



MAKER
MineShop · built in Latvia

COOLING
Air · hot/cold aisles

POWER
380 V · 731 A

FORMAT
20 ft shipping container

Product Manual

Setup, operation, maintenance and OneMiners hosting guide

Version 1.0
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Contains manufacturer information © Mining Hardware Ltd. (MineShop), summarised for customer reference.

About this manual

This manual covers the **MineBox 500 Express**, a 20 ft air-cooled mining container with a maximum power of **486 kW**. MineShop publishes one specification set for the "MineBox 500" and "MineBox 500 Express"; no difference between them is documented.

Specifications come from MineShop's MineBox page. Installation guidance is OneMiners' general container practice.

Sections that reproduce or summarise manufacturer or reseller data carry a **Source** tag. Values that sources disagree on, or that no source confirms, are marked **Needs verification** and listed in section 1.4. Planning figures marked *calculated* are OneMiners arithmetic from the published values, not manufacturer ratings. Chapters 9 and 10 cover OneMiners services and support and are marked **OneMiners**.

Before you start

POWER	SITE	AIR	MINERS
380 V · 731 A	**Hardened ground**	**Miner fans move the air**	**≤ 486 kW total**
4 × 400 mm² + 1 × 240 mm² feed.	About 5 t per unit.	Hot and cold aisles.	Slot count depends on model.

How notices are used

DANGER
Risk of electric shock, arc flash, fire, crushing or falling loads. Do not continue until the condition is met.

CAUTION
Risk of damage to the container or miners, lost uptime, or a failed inspection. Read before acting.

NOTE
Useful background, limits of a specification, or where to check further.

ONEMINERS
Applies to containers bought, deployed or hosted through OneMiners.

Copyright and disclaimer

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A mining container is electrical infrastructure. Its installation must be designed, inspected and connected by licensed electrical engineers and contractors under local codes, utility rules and permits. Nothing in this manual replaces the manufacturer's installation documents or a site engineer's design. Specifications may change without notice. Profitability and hosting information is guidance only and is not financial advice.

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CHAPTER 01

Product Overview

The MineBox 500 converts a standard 20 ft shipping container into a mining room with separate hot and cold aisles. It uses the miners' own fans to move air, so there are no extra container fans to power.



Figure 1-1 MineBox 500 Express. Image: OneMiners product photo.

1.1 Key figures

486 kW	**225** outlets	**30** days
Maximum power	25 PDUs	Lead time for custom builds

1.2 Specifications

ITEM	VALUE
CONTAINER	
Manufacturer / model	**MineShop (Mining Hardware Ltd.) · MineBox 500 / 500 Express**
Type	**20 ft shipping container, built in Latvia**
External size (L×W×H)	**6,055 × 2,435 × 2,591 mm**
Internal size	**5,915 × 2,295 × 2,340 mm**
Weight	**1,800 kg without mining hardware**
CAPACITY	
Power	**486 kW maximum**
Legacy ASICs	**Antminer S9: 7 rows × 36 = 252 · S17: 6 rows × 32 = 192**
GPU	**Pre-built 6- or 8-GPU systems in 4U cases**

ITEM	VALUE
ELECTRICAL	
Supply	**380 V, 731 A**
Incoming cable	**(YJV-0.6/1 kV 400) × 4 + YJV-0.6/1 kV 240 × 1**
Outlets	**225 across 25 PDUs**
COOLING AND OPTIONS	
Cooling	**Separate cold and hot aisles; airflow from the miners' own fans**
Options	**Dust-free setup; water-cooled curtains on the intake wall; LAN for every rig; video surveillance**
Monitoring	**Mobile app: temperatures, hashrates, uptime; remote control**

ITEM	VALUE
Modern ASICs	**Needs verification: see 6.1**

SOURCE MineShop (mineshop.eu), "Mining Container MineBox 500"; OneMiners product page (checked 8 Nov 2026).

1.3 What's in the package

ITEM	STATUS
Container with shelving, PDUs and outlets	Included (MineShop)
Monitoring tool installation	Free with fully equipped orders (MineShop)
LAN per rig, video surveillance, dust filters, water curtains	Options (MineShop)
Hydro manifolds and dry-cooler	Not documented by MineShop · **Needs verification**
Miners, transformer, ground works	Not included

Status reflects what the manufacturer or reseller documents. The OneMiners product page currently lists the same generic "What's included" items on every container (see 1.4).

1.4 Values that need verification

These values conflict between sources or aren't confirmed by the manufacturer. Resolve them in writing with OneMiners sales before you design power, cooling or foundations around them.

ITEM	WHAT THE SOURCES SAY	USED IN THIS MANUAL
Cooling	MineShop and OneMiners spec table: air · OneMiners page also says hydro, closed-loop, dry-cooler	Air (manufacturer)
Certifications	OneMiners: CSC, UL 508A, CSA, IEC · MineShop: none stated	**Needs verification**: ask for certificates
500 vs 500 Express	MineShop uses both names for one spec set	Same unit until confirmed
Modern miner capacity	MineShop gives slot counts only for S9 and S17; OneMiners leaves rack space blank	Power-limited counts in 6.1
Phase	MineShop gives 380 V, 731 A without stating phases; 731 A matches 486 kW on a 3-phase 380 V supply (calculated)	3-phase 380 V

02 CHAPTER Site Planning

The MineBox stands on prepared, hardened ground with a heavy three-phase feed. Plan ground works and the cable route early.

2.1 Choosing the site

- Prepare hardened ground before delivery; MineShop gives about 5 tons of ground works per unit.
- Orient the intake wall toward clean, cool air and keep the hot-aisle exhaust clear of other containers' intakes.
- Plan a short route for the large incoming cables (4 × 400 mm² + 1 × 240 mm²).
- If you add water-cooled intake curtains, you'll need a water supply and drainage.

2.2 Foundation, access and lifting

Footprint	**6,055 × 2,435 mm (20 ft)**
Weight	**1,800 kg empty, plus miners**
Ground	**Hardened ground, about 5 t of works per unit (MineShop)**
Lifting	**Standard 20 ft container corner castings; crane or side-lifter**

DANGER · LIFTING
Lift only with equipment and rigging rated for the shipping weight, using the container's corner castings or the manufacturer's lifting points. Keep people clear of suspended loads. Never lift a container with miners installed unless the manufacturer allows it.

2.3 Climate and environment

Ambient	**Needs verification: not published. Plan for your miners' intake limits.**
Dust	**Choose the dust-free option at dusty sites**
Hot climates	**Water-cooled curtains on the intake wall are offered as an option**

PLANNING CHECKLIST
Before ordering, confirm: land rights and permits, utility interconnection and transformer, road access for the delivery truck and crane, internet connection, water supply and drainage (if the cooling uses water), noise limits at the site boundary, and insurance requirements.

SOURCE MineShop MineBox 500 page; OneMiners site planning practice.

CHAPTER 03

Electrical Supply

The MineBox takes a 380 V feed rated at 731 A and distributes it through 25 PDUs with 225 outlets in total.

3.1 Supply requirements

Supply	**380 V AC, 731 A (3-phase per the calculation in 1.4)**
Incoming cable	**(YJV-0.6/1 kV 400) × 4 + YJV-0.6/1 kV 240 × 1**
Load	**Up to 486 kW**
Transformer	**Sized by the utility / site engineer for at least 486 kW plus margin**

DANGER · ELECTRICAL

- The incoming supply, main protection, earthing and bonding must be designed and connected by a licensed electrical contractor and inspected before energising.
- Isolate, lock out and tag out the supply before opening any distribution panel. Verify absence of voltage with a rated tester.
- Never exceed the main breaker or PDU ratings. Size miner circuits for continuous load under your local code (often 80% of the breaker rating).

3.2 Distribution inside the container

PDUs	**25 PDUs, 225 outlets in total**
Average per outlet	**About 2.2 kW if all 225 are used at 486 kW (calculated). Modern miners need more, so fewer outlets will be used.**
Breakers	**Needs verification: per-PDU and per-outlet ratings not published**

SOURCE MineShop MineBox 500 page. Calculations: OneMiners.

04 CHAPTER Cooling and Airflow

The MineBox has no container fans: the miners' own fans push air from the cold aisle through the shelves into the hot aisle and out.

4.1 How the airflow works

1. **Cold aisle**
   Outside air enters through the intake wall (optionally through dust filters or water-cooled curtains).
2. **Miners**
   Miner fans push air through the shelves.
3. **Hot aisle**
   Hot air collects in the separated hot aisle and leaves through the exhaust openings.

4.2 Rules for good airflow

- Use miners with matching airflow direction on every shelf, all exhausting into the hot aisle.
- Fill gaps in the shelf wall with blanking panels so hot air can't return to the cold aisle.
- Because there are no container fans, a failed miner fan reduces airflow locally; replace it quickly.

4.3 Water-cooled curtains (option)

- Evaporative curtains on the intake wall cool incoming air in hot, dry climates.
- They raise humidity and need a clean water supply, drainage and regular cleaning; they're a poor choice in humid climates.

SOURCE MineShop MineBox 500 page; curtain guidance: OneMiners.

05 CHAPTER Installation and Commissioning

Installation turns a delivered container into a working mining site. Work through each step in order; the pre-power checklist must be complete and signed off before anything is energised.

5.1 Delivery and inspection

- Inspect the container on arrival before unloading: dents, damaged doors or seals, broken louvres or fans, water ingress, and loose fittings inside.
- Photograph any damage and note it on the delivery receipt before signing. Report it to OneMiners within 48 hours.

- Check the contents against the packing list: PDUs, shelving, fans, filters, keys, manuals and spare parts.

5.2 Placement

1. **Ground**
   Confirm the hardened ground is level and ready.
2. **Set down**
   Lift with a crane or side-lifter by the corner castings and set the container down.
3. **Earth**
   Bond the container to the site earth.

5.3 Connection

1. **Power**
   Licensed electrician lands the incoming cables and tests insulation, earthing and phase rotation.
2. **Network**
   Bring internet to the container; connect LAN per rig if ordered.
3. **Options**
   Connect water and drainage for curtains, and video surveillance, if fitted.

5.4 Pre-power checklist

CHECK	DONE
Supply voltage, phase rotation and earthing tested and recorded	☐
All PDU breakers OFF	☐
Intake and exhaust openings clear; filters fitted if ordered	☐
No tools or packing inside	☐
Electrical inspection signed off	☐

5.5 First power-up

1. Energise the main supply; check PDU voltages.
2. Switch on miners one PDU at a time, checking phase currents.
3. After 30 minutes at full load, check aisle temperatures and look for hot spots.

SOURCE OneMiners general commissioning practice; component details from MineShop.

CHAPTER 06

Loading Miners and Capacity

Plan the miner fleet against the container's real limits before you buy it. Then load, connect and test the miners shelf by shelf.

6.1 Capacity by miner model

A container fills up by whichever runs out first: **slots**, **power** or **cooling**. The table shows the power-limited count for common models. Use the lower of this count and the slot count, and confirm with OneMiners before you order miners.

MINER (TYPICAL RATED POWER)	POWER PER UNIT	UNITS BY POWER	SLOT LIMIT
Antminer S19k Pro 120 TH/s	2,760 W	176 (calculated)	**Needs verification**
Antminer S19 95 TH/s	3,250 W	149 (calculated)	**Needs verification**
Antminer S21 200 TH/s	3,500 W	138 (calculated)	**Needs verification**
WhatsMiner T21 190 TH/s	3,610 W	134 (calculated)	**Needs verification**

Units by power = container power limit ÷ miner rated power, rounded down (calculated). Rated powers from Bitmain and MicroBT specifications; check the label on your miners. Leave headroom for fans, lighting, network gear and power-supply losses. MineShop publishes slot counts only for older models (S9 252, S17 192).

6.2 Loading miners

1. Load evenly across shelves and phases, exhaust toward the hot aisle.
2. Record outlet, PDU, phase and serial for each miner.
3. Switch on and confirm each miner boots before loading the next row.

> **CAUTION**
> Balance miners across the three phases as you load. An unbalanced load overheats one phase and can trip the main breaker.

6.3 Network

- One IP per miner plus switches and cameras; a /24 may not be enough for 200+ devices.
- Wired uplink with a backup connection for remote monitoring.

SOURCE MineShop MineBox 500 page; OneMiners loading practice.

07 CHAPTER Operation and Monitoring

Most container problems show up first as rising temperatures or power changes. Watch the monitoring daily and act on trends, not just alarms.

7.1 Monitoring

- MineShop's mobile monitoring: workload temperatures, hashrates, uptime and downtime, with remote control from a smartphone.
- Free monitoring-tool installation with fully equipped orders.
- OneMiners' platform monitors hosted containers.

7.2 Daily and weekly checks

WHEN	CHECK
Daily	Hashrate and online count per shelf; any miner offline or overheating; power draw against the planned load; intake and exhaust temperatures.
Weekly	Walk-round: fans running, filters clean, doors sealed, no water ingress, no burning smell, no hot spots on cables or PDUs (use a thermal camera if available).
Monthly	Check PDU and breaker loads per phase; compare with the previous month. Check cameras, door lock and internet backup.

7.3 Seasonal operation

- Hot weather: consider the water-curtain option in dry climates; clean filters more often.
- Cold weather: with no container fans, hot-air recirculation isn't built in. Watch for condensation at start-up.

SOURCE MineShop MineBox 500 page; OneMiners operating practice.

08 CHAPTER Maintenance and Troubleshooting

Clean air paths, tight connections and a healthy cooling system keep a container running. Most faults trace back to one of these three.

8.1 Maintenance schedule

INTERVAL	TASK
Weekly	Check intake and exhaust openings; clean filters or curtains if fitted.
Monthly	Check PDU loads per phase; inspect for water ingress and corrosion.

INTERVAL	TASK
Quarterly	Isolate, then check connection tightness and scan for hot spots; blow dust from miners.
Yearly	Full electrical inspection; check container roof, seals and paint.

Intervals are OneMiners recommendations unless a source is given. Shorten them at dusty, humid or coastal sites.

DANGER
Isolate and lock out the supply before working on PDUs, fans, busway or wiring. Only qualified electricians may open distribution panels.

8.2 Troubleshooting

SYMPTOM	CHECK
Whole container off	Utility supply, transformer and main breaker. Find the cause of any trip before resetting.
One shelf or PDU off	PDU breaker or outlet breakers; overload on that PDU; loose PDU feed.
Miners overheating	Intake temperature, dirty filters, failed fans, gaps letting hot air back into the cold aisle, blocked exhaust.
Miners offline but powered	Network switch, uplink and router; DHCP pool size; cabling to that shelf.
Breaker trips repeatedly	Overload or phase imbalance. Rebalance miners across phases and reduce load. Call an electrician.

ONEMINERS
For a container bought or hosted through OneMiners, send the symptom, photos and monitoring screenshots to **service@oneminers.com** or WhatsApp **+1 305 867 6143**.

SOURCE OneMiners maintenance practice.

09 CHAPTER OneMiners Services

OneMiners can deliver the container to your site or host it for you. This chapter summarises the options and terms as published on the product page.

9.1 Deployment options

OPTION	WHAT ONEMINERS DOES
Delivered to your site	Ships the container turnkey for your own installation. Your engineers handle site works, utility connection and commissioning.

OPTION	WHAT ONEMINERS DOES
Managed hosting	OneMiners hosts, powers, cools and monitors the container and its miners in one of its facilities, from day one.
Consultation	Use **Request Consultation** on the product page to size a site: power, transformer, cooling and miner mix.

9.2 Delivery, payment and warranty

- Orders are processed within 48 hours of verified payment; bulk orders may take longer. Estimated delivery is 5–7 business days after dispatch, plus customs time. Carriers: DHL Express, UPS, FedEx, TNT.
- Delivery is DDP by default. Where DDP isn't available, DAP applies and the buyer is the importer of record.
- Payment: BTC, LTC, SEPA bank transfer (1–3 business days), OneMiners Balance, or in person. Invoices on request.
- Miners are not included; the container is infrastructure only. MineShop quotes 30 days for customised builds.
- OneMiners' 7-year warranty applies to **miners** hosted by OneMiners. Container and miner warranties are separate; the OneMiners product page doesn't publish a container warranty. Get the container warranty terms in writing at purchase.

ONEMINERS
Hosted at a OneMiners site, the container is installed, commissioned and monitored by our team. Ask sales which locations accept your container type and what the current hosting rate is.

ONEMINERS OneMiners container product pages (shipping, payment and FAQ sections) and "Best Bitcoin Mining Containers to Buy in 2026" (21 Sep 2026). Checked 7–8 Nov 2026.

10 CHAPTER Resources and Support

Where to find manufacturer information, OneMiners services and help.

10.1 Resources

MINESHOP
MineBox 500
mineshop.eu/asic-mining-container

MINESHOP
Mining containers
mineshop.eu/mining-containers

ONEMINERS
Product page
oneminers.com/collections/mining-containers/products/minebox-500-express

ONEMINERS
Mining containers
oneminers.com/collections/mining-containers

ONEMINERS
Container buying guide
oneminers.com/blogs/news

ONEMINERS
Manuals & Firmware Library
oneminers.com/pages/manuals-and-firmware

10.2 Contact OneMiners

SUPPORT, 24/7

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Manuals library

10.3 Sources used for this version

1. MineShop (Mining Hardware Ltd.), "Mining Container MineBox 500": dimensions, weight, ground works, capacity, power, voltage and current, cable, PDUs, cooling, options, monitoring, lead time.
2. OneMiners product page, MineBox 500 Express.
3. OneMiners: product page, "Best Bitcoin Mining Containers to Buy in 2026" (21 Sep 2026), site contact details, Media Kit. Checked 7–8 November 2026.

10.4 Revision history

VERSION	DATE	CHANGES
V1.0	Nov 2026	First edition. Manufacturer specifications with conflicts listed in 1.4, site, electrical, airflow, installation, capacity planning, operation, maintenance and OneMiners services.